

REMARKS

Review and reconsideration on the merits are requested.

The limits to the claims find support at page 20, lines 5-23 and page 9, lines 13-16 in the specification.

Applicants have the following additional remarks to make on the prior art.

US 6,586,087 Young

Young relates to a copper aluminosilicate glass. The composition thereof is $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-B}_2\text{O}_3\text{-R}_2\text{O-RO-CuO-F-M}_x\text{O}_y$, wherein R represents an alkali metal or an alkaline earth metal, and M represents a transition metal selected from Co, Ti, Ni, Mn and Fe. In distinction, claims 3 and 4 of the present application recites zirconia silicate glass. **An essential component of the glass is ZrO_2 which is not described in Young.** Because Zr is low in reactivity with the corrosive gas used in semiconductor production processes or with a plasma of the gas, even if Zr reacts with fluorine in a corrosive gas, the resultant product is a high-boiling compound, and thus Zr has the effect of suppressing etching caused by the corrosive gas.

The Cu is used in Young is easily dispersed into a silicon wafer. Thus, when the glass a described in Young is used as a vessel or a part of a film-forming device or plasma treatment device, Cu is dispersed into the silicon water. Such a silicon wafer containing Cu is not fit as a product. In distinction, since a vessel or a part made from a corrosion resistant member containing a sprayed coating comprising Si-Zr-group 3a/group 2a metal according to the present

invention does not contain any element such as Cu which may be a contaminant source, the above problem does not occur.

Further, a glass as described in Young is for use as a sealing material to glass such as borosilicate glass or the like. Young is thus silent about the thickness of sprayed coating constituted from the glass of the present invention. See the thickness of the sprayed coating limit above discussed.

With respect to the reactivity of a sprayed coating of the glass of the present invention with plasma, the English specification of the present application at page 7, lines 18-23 states:

"Among amorphous glasses containing the foregoing element, the corrosion resistant glass sprayed coating of the invention is especially preferably an aluminosilicate glass or a zirconia silicate glass. Since aluminum or zirconium contained in the aluminosilicate glass or zirconia silicate glass forms only a high-boiling compound together with fluorine likewise the foregoing element of the group 2a or group 3a, it is effective for suppressing etching caused by the fluorine based plasma or corrosive gas."

US 6,862,119 Chiba

Chiba relates to a barium borosilicate glass containing no lead, bismuth or cadmium and having a softening point and a coefficient of expansion suitable for e.g., insulating pastes for electronic parts, materials for sealing electronic parts, color pastes for automobile windows and glazes for dishes. Chiba is silent about the presence or absence of corrosion resistance when a glass as described in Chiba is used as a vessel or a part for the film-forming device or the plasma treatment device.

US 6,323,108 Kub

Kub relates to a method of fabricating ultra-thin bonded semiconductor layers. Kub describes interlayers comprising SiO₂ as the ultra-thin layers, but discloses silicon wafers as layers on and beneath the ultra-thin layers. Accordingly, the ultra-thin bonded semiconductor layers are quite different from the glass comprising the member of the present invention.

Chiba, on the other hand, does not describe any structure having interlayers. Further, the application in Chiba is as insulating pastes for electronic parts, materials for sealing electronic parts, color pastes for automobile windows, and glazes for dishes, quite different from the fabrication of semiconductor layers.

Miscellaneous

With respect to softening points, see the present specification at page 9, lines 13-16. A softening point of 1,000 to 1,700°C is recited which is higher than that of Chiba. Chiba does seem to fairly specifically require a softening point of 850°C or less and preferably from 600 to 800°C. See Chiba at col. 2, lines 17-27, which does appear to be consistent with the disclosure in Chiba at col. 1, lines 33 and 34.

Chiba at col. 3, lines 16-20, does teach one of ordinary skill in the art that it is the presence of B₂O₃ which affects the softening point. Applicants believe that “consisting essentially of” language distinguishes Chiba.

Substance of Interview

A telephone interview was conducted concerning this application on August 29, 2008.

It concerned TOPICS OF DISCUSSION dated August 12, 2008. No agreement was reached and the Examiner said that if a formal interview was desired such should be requested.

The Examiner's indicated that one of the proposed amendments to a plasma treatment device appeared to be an intended use that did not necessarily distinguish over the prior art.

The Examiner further indicated that the proposed amendments would necessitate a new search which would require an RCE.

Otherwise Applicants essentially repeated the arguments in TOPICS OF DISCUSSION REGARDING US 6,586,087 Young and the discussion regarding softening.

Other than the above, US 6,862,119 Chiba and US 6,322,108 Cub were not discussed.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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